

independently present in the aspartic acid rich domain, and wherein

said mutant prenyl diphosphate synthase comprises (1) at least one amino acid substitution, said at least one amino acid substitution located at at least one amino acid position selected from (a) an amino acid between D₁ and the amino acid residue at the fifth position upstream of D₁ and (b) the amino acid residue located one amino acid position upstream of D₃; (2) at least one additional amino acid inserted between D₃ and the first amino acid upstream of D₃; or a combination of (2) and (3);

wherein said mutant prenyl diphosphate synthase synthesizes prenyl diphosphate which is shorter than prenyl diphosphate synthesized by a corresponding wild-type enzyme.

Claim ²16. A mutant prenyl diphosphate synthase according to claim ¹17 wherein said mutant has the enzymatic activities and thermo stability of wild type prenyl diphosphate synthase. ✓

Please amend the claims as follows.

In line 1 of each of claims 2-5, 7 and 11, change "1" to --17--.

In line 2 of each of claims 8-10 and 15, change "1" to -- 17 --.

In line 2 of each of claims 10 and 15, change "1" to --17--.

Claim 16, line 3, after "to" insert -- claim 17 or --, and after "claims" delete "1" and insert -- 2 --.